

UNDERGROUND STORAGE TANK
CLOSURE REPORT

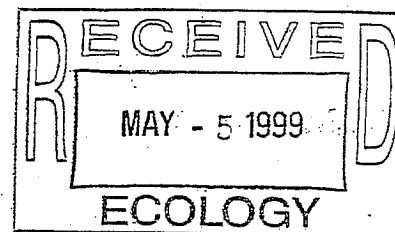
for
Lewis County Motor Pool

Facility ID No. 012401

SW
12401
04231

Prepared for:

Lewis County
Department of General Administration
360 NW North St.
Chehalis, WA 98532-1900



Prepared by:

Pacific Northern Environmental
1081 Columbia Blvd
Longview, WA 98632

April 21, 1999

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INTRODUCTION

This report presents documentation pertaining to underground storage tank decommissioning and site assessment activities conducted for Lewis County. Pacific Northern Environmental (PNE) was contracted by Lewis County Department of General Administration to permanently decommission and remove one 12,000 gallon underground storage tank (UST) at 467 West Main in Chehalis, WA, and conduct the related site assessment.

The purpose of this report is to provide Lewis County and the Washington Department of Ecology with a summary of activities conducted by PNE during the UST decommissioning and site assessment process.

BACKGROUND

Site Description

The project site is located in downtown Chehalis in a predominantly commercial section of town. Figure 1 illustrates the site location. Surrounding land use consists of retail stores and office buildings.

The project site is currently utilized as a maintenance facility for Lewis County vehicles. The subject UST system that was decommissioned consisted of one steel 12,000 gallon UST connected to a single dispenser (suction type) by two inch steel piping. Figure 2 illustrates the UST system lay out.

Site History

The subject UST system was installed in January of 1989. Prior to installation, another UST was removed from the site and the new tank was installed in the same UST nest. A site assessment was not conducted at the time. Lewis County personnel do remember an odor similar to gasoline during the former UST decommissioning. Both decommissioned UST's stored gasoline used to fuel County vehicles. The UST system was last used in November of 1998.

UST DECOMMISSIONING

The subject UST was decommissioned during the week of November 2, 1998. The UST was decommissioned in accordance with applicable Washington Administrative Codes pertaining to UST decommissioning and procedures outline in the American Petroleum Institute Recommended Practice 1604 "Removal and Disposal of Used Underground Storage Tanks." The USTs were decommissioned using the following procedures:

- Thirty Day Notice was sent to Ecology;
- A permit was obtained from the City of Chehalis Fire Department;
- The UST was emptied of all recoverable product;
- Asphalt, concrete and soil was excavated to tank top and stockpiled on site;
- Product lines were drained back into the tanks and removed;
- Drop tubes, fill pipes and risers were removed from the UST;
- The UST was triple rinsed by West Pac Environmental. The rinse water was collected and disposed of by West Pac Environmental. A copy of the disposal receipt is attached in Appendix A;

- The UST was purged of flammable vapors using forced air through an inductor type blower until a lower explosive limit of 0% was achieved;
- The UST was removed from the excavation, cut open and inspected;
- The UST and associated piping were transported to Northwest Truck Parts and Recycling Inc. in Rainier, Oregon to be disposed of as scrap;
- The Ecology UST Closure and Site Assessment Notice and Checklist were sent to Ecology. Copies are attached in Appendix B;

SITE ASSESSMENT

During the UST removal, a Registered Site Assessor was on-site to document decommissioning activities and collect samples for chemical analyses.

After removal, the UST was inspected for any evidence or possibility of leaks. Visual observation of the tank determined the steel to be in good condition with no signs of pitting, holes or overall damage. The piping was also inspected and found to be in good condition.

Free Product Removal

Following UST removal, the excavation was inspected for signs of contamination. Free product was observed on the water within the excavation at approximately 12.6 feet below ground surface (bgs). The free product was removed with the use of a vacuum truck, then transported to Fuel Processors in Portland, OR, for disposal. Approximately 750 gallons of product and oily water was removed from the excavation on November 4, 1998. On November 5, an additional 415 gallons of recoverable product water was removed. Disposal receipts are attached in Appendix A.

On November 4, 1998, PNE contacted Ms. Patricia Martin with the Department of Ecology and reported the presence of contaminated soil and free product.

Soil Sampling

Two types of soil were encountered at the site. The fill material surrounding the UST consisted of dark gray, well graded, coarse, rounded gravel (70%) and well-graded, medium dense sand (30%). The fill material did have an odor similar to those of petroleum hydrocarbons and was moist to wet. The native material consisted of orange brown and grayish green silty clay, stiff medium plasticity (80%) and 20% well-graded, coarse, sub-rounded gravel. The material did have odors similar to those of petroleum hydrocarbons and was moist to wet.

Prior to conducting site assessment soil sampling, petroleum impacted fill material (approximately 200 cubic yards) removed from the excavation and stockpiled on top of plastic.

In order to measure the concentrations of petroleum hydrocarbons within the excavation, soil samples were collected in accordance with the sampling and analytical procedures specified in *The Ecology, Guidance for Site Checks and Site Assessments for Underground Storage Tanks*. One soil sample was collected from each of the four sidewalls of the excavation at the soil water interface (12.6 feet bgs). Soil samples locations are presented in Figure 2. One soil sample was collected approximately twenty four inches beneath the dispenser.

All of the soil samples obtained from the site were collected by a Registered Site Assessor wearing new latex gloves. The soil samples were immediately placed into laboratory supplied, four ounce, glass sampling jars. Once the sampling jars were sealed and labeled with individual identification numbers, they were placed in an iced cooler to be maintained at approximately 4 degrees celsius. A chain of custody form

was completed and was hand delivered along with the soil samples to WyEast Environmental Services, Inc. in Portland, Oregon.

Soil Sample Analytical Results

One soil sample, LC-SS4-114, which exhibited the highest amount of volatile organic compounds, through field screening (photo-ionization detector) was chemically analyzed by Northwest Total Petroleum Hydrocarbon - Hydrocarbon Identification (NW TPH-HCID). Results of the chemical analysis is presented in Table 1. A copy of the laboratory report is attached is Appendix C.

TABLE 1 SOIL SAMPLE RESULTS NW TPH-HCID In Parts Per Million				
Sample Id	Sample Depth	Gasoline	Diesel	Heavy Oil
LC-SS4-1 ¼	12.5'	Detected	Not Detected	Not Detected

Results of the chemical analyses did detect the presence of petroleum hydrocarbons in the gasoline range within the soil sample.

In order to determine the concentrations of gasoline range hydrocarbons present, all of the soil samples collected from the site were chemically analyzed by Northwest Total Petroleum Hydrocarbons - Gasoline extended (NWTPH-Gx). Results of the chemical analyses are presented in Table 2.

TABLE 2 SOIL SAMPLE RESULTS NW TPH-Gx In Parts Per Million		
Sample Identification	Sample Depth	Sample Result
LC-SP1- ¼	Stockpile	23
LC-SP2- ¼	Stockpile	2420
LC-SP3- ¼	Stockpile	4450
LC-SP4- ¼	Stockpile	1220
LC-SP5- ¼	Stockpile	2200
LC-SS1- ¼	12.6'	4410
LC-SS2- ¼	12.6'	6280
LC-SS3- ¼	12.6'	945
LC-SS4- ¼	12.6'	4680
LC-P11- ¼	24"	789

Results of the NW TPH-Gx chemical analyses detected concentrations of gasoline range hydrocarbons above Method A Cleanup Criteria of 100 ppm as defined in "The Model Toxic Control Act Cleanup Regulations" (Wac 173-340-740).

Groundwater Sampling

As previously mentioned in this report, groundwater and free product was discovered within the excavation. Once the free product was removed and disposed of, a sample was collected from the groundwater remaining in the excavation. The groundwater sample was obtained from the excavation with the use of a new disposable bailer. The groundwater was immediately placed into one - 1 liter amber glass jar and two - 40 ml voas and sealed. The groundwater sample was labeled and placed in an iced cooler to be maintained at approximately 4 degrees celsius. A chain-of-custody form was filled out and was hand delivered along with the sample to WyEast Environmental Sciences.

Groundwater Analytical Results

The groundwater was chemically analyzed by NW TPH-Gx and EPA 8020. Results of the chemical analyses are presented in Table 3.

TABLE 3 GROUNDWATER SAMPLE RESULTS NW TPH-Gx & EPA 8020 In Parts Per Billion					
Sample Id	Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes
LC-WS1 11/5	61,400	11,700	14,600	625	8,670

Results of the chemical analyses detected concentrations of gasoline range hydrocarbons and BTEX above Method A Cleanup Levels of 1,000 for TPH-G, 5.0 for Benzene, 40.0 for Toluene, 30.0 for Ethyl-benzene and 20.0 for Xylenes.

Over Excavation

Upon the receipt of the analytical results, it was decided by a representative of Lewis County to conduct exploratory excavation in the area where the highest range of gasoline hydrocarbons were detected through chemical analyses. It was also decided that all of the contaminated soil would be transported off site to property owned by Lewis County located in Toledo, WA.

Prior to soil transport, a holding cell was constructed by PNE for soil containment and storage. The holding cell was constructed of a 30 mil visqueen liner placed on top of undisturbed native soil and bermed with hay bails.

On November 5, 1998, under the direction of Lewis County and an independent consultant, PNE excavated a five feet wide trench approximately 15 feet long in the area of the northwest corner of the excavation. During excavation activities, soil samples were collected and field screened with the use of a photo-ionization detector (PID). Soil was placed into plastic bags and sealed. The probe of the PID was then inserted into the void portion of the plastic bag and head space readings were monitored. PID readings of soil samples collected throughout the trench indicated the presence of petroleum hydrocarbons ranging from 400 ppm to 1600 ppm. The trench was excavated to a depth of 12' bgs.

April 21, 1999

The Lewis County representative and the independent consultant decided to stop over excavation activities due to utilities, the proximity of the building to the excavation, the adjacent street and the fact that obvious contamination still existed 15 feet west of the original excavation. A total of nine truck and trailer loads of petroleum impacted soil (approximately 250 yards) were transported off site to the holding cell and covered with visqueen. After the contaminated soil had been transported off site, the excavation was backfilled with pea gravel, crushed rock and resurfaced with asphalt.

SUMMARY AND CONCLUSIONS

Pacific Northern Environmental permanently decommissioned and removed one 12,000 gallon underground storage tank from the Lewis County Motor Pool. The analytical results obtained indicated that petroleum hydrocarbon contamination in the gasoline range does exist at levels above Method A Cleanup Levels in both the soil and groundwater. Approximately 250 yards of contaminated soil was taken off site to a soil containment and storage area. 1165 gallons of free product and oily water was removed from the excavation and transported off site for disposal. Free product was not observed within the excavation prior to backfilling.

It is PNE's recommendation that the zone and extent of the contaminated soil and groundwater be fully characterized and that a remedial action plan be developed.


LIMITATIONS


This work was performed by PNE in accordance with generally accepted professional practices related to the nature of the work accomplished in the same or similar localities, at the time that the services are performed, and in accordance with agreements and understandings with the client, which may not be disclosed in the document. This report and its contents are for the specific application to the referenced project and for the exclusive use of the client. No other warranty, expressed or implied, is made. Any reliance on this report, in whole or in part by a third party is at the party's sole risk.

If you have any questions or require further information, please feel free to give us a call.

Sincerely,

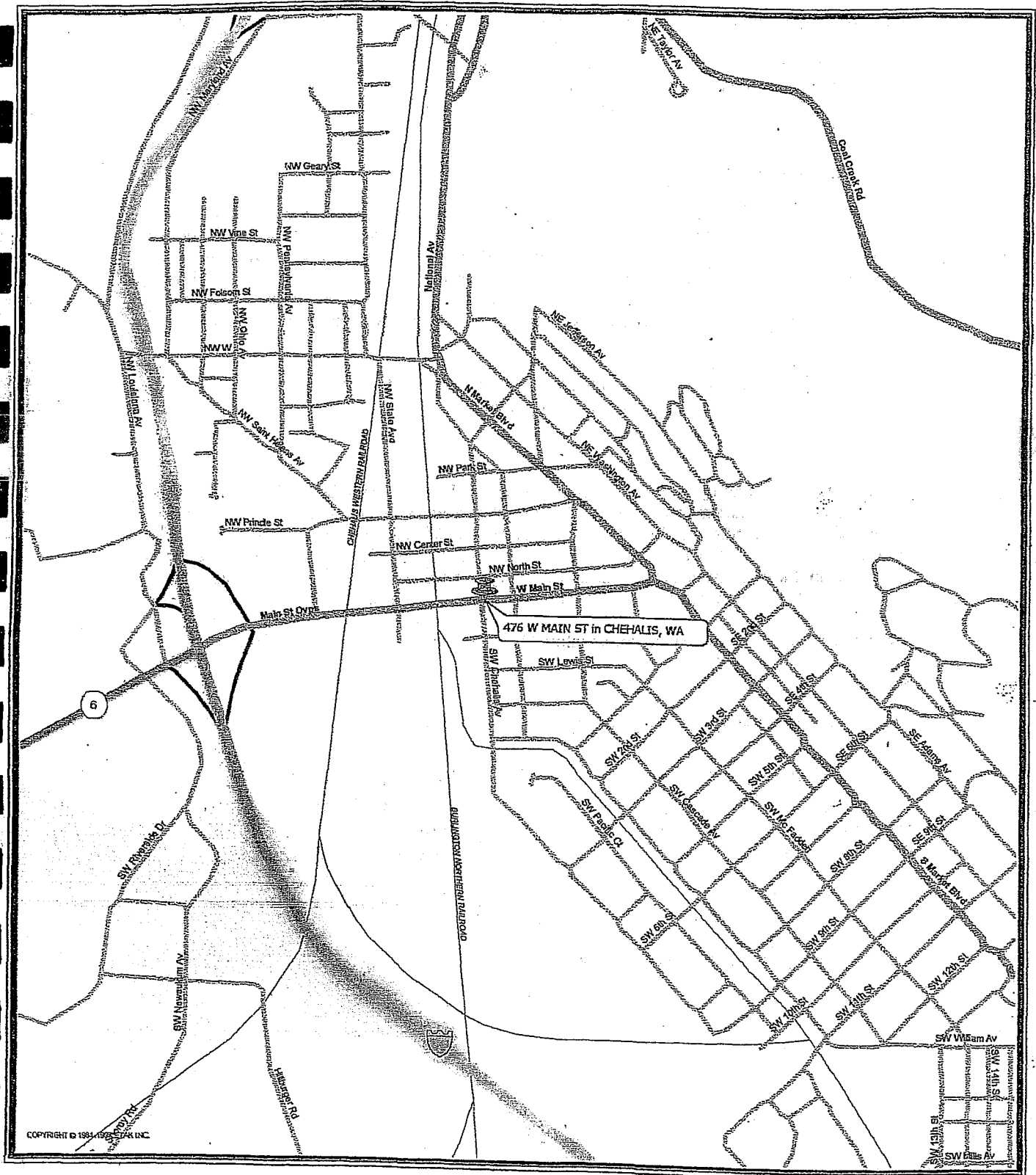
PACIFIC NORTHERN ENVIRONMENTAL


Mark C. Hansen
Registered Site Assessor


Steve R. Anderson
Environmental Service Manager

Cc: Washington Department of Ecology

Current Map





54 South Dawson Street
Seattle, Washington 98134
Phone: 206-762-1190
Emergency Phone: 1-800-424-9300

17044

BILL OF LADING AND GALLONAGE TICKET

SHIPPER/GENERATOR <u>LEWIS County</u>		CONTACT	JOB # <u>60-45279</u>
ADDRESS <u>1000 West Main</u>		PHONE #	LOAD # <u>1</u>
CITY, STATE, ZIP <u>Clatsop Co. OR 97131</u>			DATE <u>11-3-98</u>
CARRIER <u>WestPac Environmental</u>		PHONE # <u>515-755-1929</u>	DOCUMENT # <u>7044</u>
CONSIGNEE <u>FPI</u>		CONTACT	TRUCK # <u>776</u>
ADDRESS <u>FPI</u>		PHONE # <u>503-741-1991</u>	PRODUCT TYPE <u>Oil water</u>
CITY, STATE, ZIP <u>Portland OR 97208</u>			EST. GALLONS: <u>850 gal</u>

HM	ITEM #	U.S. DOT DESCRIPTION	#	TYPE	QTY.
1	A	WDA-412 Oil water			100 gal
2	B	WDA-412 Oil water from ground water			750 gal
	C				
	D				

A. WPQ # _____ DISP. CODE: _____ C. WPQ# _____ DISP. CODE: _____
B. WPQ # _____ DISP. CODE: _____ D. WPQ# _____ DISP. CODE: _____

DISPOSAL

WASH OUT: YES () NO () TIME IN _____ TIME OUT _____
E. WATER _____ GALLONS LOCATION _____ TEST _____ DISP. CODE _____
F. SOLIDS _____ GALLONS LOCATION _____ TEST _____ DISP. CODE _____
% SUSPENDED SOLIDS BY CENTRIFUGE + _____ GALS SEDIMENT
G. OIL/ DIESEL _____ GALLONS LOCATION _____ TEST _____ DISP. CODE _____
HOC'S _____ PCB'S _____ B.S.&W. _____ API _____ LAB: Y / N

Shipper's/Generator Certification: I hereby declare that the contents of the consignment are fully and accurately described on the above bill of lading by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway, vessel and rail according to applicable international and national government regulations and this material is not regulated under WAC 173-303, 40 CFR Part 261 or 40 CFR Part 761.

X SHIPPER / GENERATOR (PRINT NAME) _____ X SIGNATURE _____ DATE: _____
X CARRIER - DRIVER 1 (PRINT NAME) Chris Scott X SIGNATURE Chris Scott DATE: 11-3-98
X CARRIER - DRIVER 2 (PRINT NAME) _____ X SIGNATURE _____ DATE: _____
X CONSIGNEE - DISPOSAL FACILITY (PRINT NAME) _____ X SIGNATURE _____ DATE: _____

17038



54 South Dawson Street
Seattle, Washington 98134
Phone: 206-762-1190
Emergency Phone: 1-800-424-9300

BILL OF LADING AND CARRIER TICKET

SHIPPER / GENERATOR <u>Lewis County</u>		CONTACT <u>MARK HILSEN</u>	JOB # <u>10-45279</u>
ADDRESS <u>476 West Main</u>		PHONE # <u>1203/31-1571</u>	LOAD # <u>1</u>
CITY, STATE, ZIP <u>Ellicottville, N.Y.</u>			DATE <u>11-4-96</u>
CARRIER <u>West PAC</u>		PHONE #	DOCUMENT # <u>17038</u>
CONSIGNEE <u>F.R.I.</u>		CONTACT	TRUCK # <u>776</u>
ADDRESS		PHONE #	PRODUCT TYPE <u>ST. 14</u>
CITY, STATE, ZIP <u>Northfield, N.Y.</u>			EST. GALLONS: <u>150</u>

HM	ITEM #	U.S. DOT DESCRIPTION	#	TYPE	QTY
	A.	<u>1000 LBS. OILY HCL Filter Ground</u>	<u>1</u>	<u>TT</u>	<u>415 gal</u>
	B.				
	C.				<u>450</u>
	D.				

A. WPO# _____ DISP. CODE: _____ C. WPO# _____ DISP. CODE: _____

B. WPO# _____ DISP. CODE: _____ D. WPO# _____ DISP. CODE: _____

DISPOSAL

WASH OUT: YES () NO () TIME IN _____ TIME OUT _____

E. WATER _____ GALLONS LOCATION _____ TEST _____ DISP. CODE _____

F. SOLIDS _____ GALLONS LOCATION _____ TEST _____ DISP. CODE _____

% SUSPENDED SOLIDS BY CENTRIFUGE + _____ GALS SEDIMENT

G. OIL / DIESEL _____ GALLONS LOCATION _____ TEST _____ DISP. CODE _____

H. OC'S _____ PCB'S _____ B.S.&W. _____ API _____ LAB: Y / N

Shipper's/Generator Certification: I hereby declare that the contents of the consignment are fully and accurately described on the above bill of lading by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway, vessel and rail according to applicable international and national government regulations and this material is not regulated under WAC 173-303, 40 CFR Part 261 or 40 CFR Part 761.

X Mark Hilsen
SHIPPER / GENERATOR (PRINT NAME)

X Mark Hilsen
SIGNATURE

DATE: 11-4-96

X Mark Hilsen
CARRIER - DRIVER 1 (PRINT NAME)

X Mark Hilsen
SIGNATURE

DATE: 11-4-96

X Mark Hilsen
CARRIER - DRIVER 2 (PRINT NAME)

X Mark Hilsen
SIGNATURE

DATE: _____

X Mark Hilsen
CONSIGNEE - DISPOSAL FACILITY (PRINT NAME)

X Mark Hilsen
SIGNATURE

DATE: _____



UNDERGROUND STORAGE TANK Closure and Site Assessment Notice

See back of form for instructions

FOR OFFICE USE ONLY	
Site ID #:	12401
Owner ID #:	04231

Please ☒ the appropriate box(es)
☐ Temporary Tank Closure ☐ Change-In-Service ☒ Permanent Tank Closure ☒ Site Check/Site Assessment

Site Information

Owner Information

(This form will be returned to this address)

Site ID Number 012401 (Available from Ecology if the tanks are registered)
Site/Business Name LEWIS Co. MOTOR POOL
Site Address 476 WEST MAIN Street
City/State CHEHALIS WA
Zip Code 98532-1900 Telephone (360) 740-1337
UST Owner/Operator LEWIS COUNTY
Mailing Address 360 NW NORTH ST. Street
P.O. Box
City/State CHEHALIS WA
Zip Code 98532 Telephone (360) 740-1337
Owner's Signature _____

Tank Closure/Change-In-Service Company

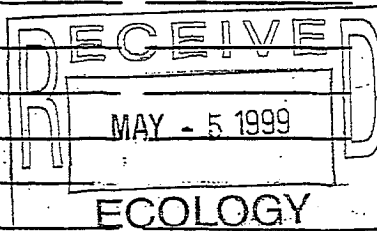
Service Company PACIFIC NORTHERN ENVIRONMENTAL
Certified Supervisor MARK HANSEN Decommissioning Certification No. 0879941-26
Supervisor's Signature Mark Hansen
Address 1081 COLUMBIA BLVD Street
City LONGVIEW WA State WA Zip Code 98632 Telephone (360) 423-2245

Site Check/Site Assessor

Certified Site Assessor MARK HANSEN
Address 1081 COLUMBIA BLVD Street
City LONGVIEW State WA Zip Code 98632 Telephone (360) 423-2245

Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
<u>1</u>	<u>11-4-98</u>	<u>REMOVAL</u>	<u>12,000</u>	<u>GASOLINE</u>



Contamination Present at the Time of Closure

☒ Yes ☐ No ☐ Unknown
Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

☒ Yes ☐ No

If contamination is present, has the release been reported to the appropriate regional office?



UNDERGROUND STORAGE TANK Site Check / Site Assessment Checklist

SW FOR OFFICE USE ONLY
Site #: 12401
Owner #: U 4231

INSTRUCTIONS

When a release has not been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person certified by IFCI or a Washington registered professional engineer who is competent, by means of examination, experience, or education, to perform site assessments. The results of the site check or site assessment must be included with this checklist. This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSEMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This form must be signed by the registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section
Department of Ecology
PO Box 47655
Olympia WA 98504-7655

SITE INFORMATION

Site ID Number (Available from Ecology if the tanks are registered): 012401
Site/Business Name: LEWIS COUNTY CAR POOL
Site Address: 476 WEST MAIN Telephone: (360) 740-1337
CHEWALIS, WA 98532-1900
City State Zip Code

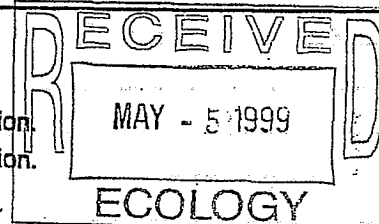
TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
<u>1</u>	<u>12,000</u>	<u>GASOLINE</u>

REASON FOR CONDUCTING SITE CHECK / SITE ASSESSMENT

Check one:

- ☐ Investigate suspected release due to on-site environmental contamination.
☐ Investigate suspected release due to off-site environmental contamination.
☐ Extend temporary closure of UST system for more than 12 months.
☐ UST system undergoing change-in-service.
☐ UST system permanently closed-in service.
☒ UST system permanently closed with tank removed.
☐ Abandoned tank containing product.
☐ Required by Ecology or delegated agency for UST system closed before 12/22/88.
☐ Other (describe):



CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

	YES	NO
1. The location of the UST site is shown on a vicinity map.	MEH	
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)	MEH	
3. A summary of UST system data is provided. (see Section 3.1.)	MEH	
4. The soils characteristics at the UST site are described. (see Section 5.2)	MEH	
5. Is there any apparent groundwater in the tank excavation?	MEH	
6. A brief description of the surrounding land use is provided. (see Section 3.1)	MEH	
7. Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	MEH	
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	MEH	
- groundwater samples distinguished from soil samples (if applicable)	MEH	
- samples collected from stockpiled excavated soil	MEH	
- tank and piping locations and limits of excavation pit	MEH	
- adjacent structures and streets	MEH	
- approximate locations of any on-site and nearby utilities	MEH	
9. If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)	MEH	
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	MEH	
11. Any factors that may have compromised the quality of the data or validity of the results are described.	MEH	
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred.	MEH	

SITE ASSESSOR INFORMATION

Person registered with Ecology: Mark Hansen Firm Affiliated with: PACIFIC NORTHERN ENVIRONMENTAL

Business Address: 1081 COLUMBIA BLVD Telephone: (360) 423-2245

LONGVIEW, WA 98632

City: _____ State: _____ Zip Code: _____

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons
information are subject to penalties.

Date: 12/22/98 Signature of Person Registered with Ecology: Mark E. Hansen

LABORATORY REPORT

Pacific Northern Environmental
1081 Columbia Boulevard
Longview WA 98632

PROJECT NAME/SITE: Lewis County Motor Pool
PROJECT NUMBER: 98-7-056
EXTRACTION DATE: 11-4-98

REPORT NUMBER: 24212
REPORT DATE: 11-5-98
PAGES: 1 of 1

NWTPH-Gx

Analyte: Total Petroleum Hydrocarbon Quantification for soil (dry weight basis)

Field ID	Lab ID	Matrix	mg/Kg (ppm)	Surrogate Recovery (%)
LC-SP1-11/4	A694	SOIL	23	76
LC-SP2-11/4	A695	SOIL	2420	124
LC-SP3-11/4	A696	SOIL	4450	*
LC-SP4-11/4	A697	SOIL	1220	104
LC-SP5-11/4	A698	SOIL	2200	150
LC-SS1-11/4	A699	SOIL	4410	133
LC-SS2-11/4	A700	SOIL	6280	*
LC-SS3-11/4	A701	SOIL	945	91
LC-SS4-11/4	A702	SOIL	4680	*
LC-PI1-11/4	A703	SOIL	789	93
BLANK	-	-	ND	-
Reporting Limit	-	-	20	-

* Surrogate peak not discernible on chromatogram from analyte peak

Surrogate is p-Bromofluorobenzene

ND = Not Detected (below reporting limit or detection limit)

NW TPH-HCID

Analyte: Petroleum Hydrocarbon Identification (Gasoline, Petroleum, Heavy Oil) for soil (dry weight basis)

Field ID	Lab ID	Identification			Surrogate Recovery (%)
		Gasoline	Diesel	Heavy Oil	
LC-SS4-11/4	A702	Detected	ND	ND	105
BLANK	-	ND	ND	ND	-
Reporting Limits (mg/Kg)	-	20	50	100	-

Surrogate is Chlorooctane

ND = Not Detected (below reporting limit or detection limit)

W. East

Environmental Sciences, Inc.

CHAIN OF CUSTODY

2415 SE 11th Ave. • Portland, Oregon 97214 • (503) 231-9320 • FAX (503) 231-9344

Research & Laboratory Services

Report Number: _____

PROJECT # 98-7-056		PROJECT NAME / SITE Levitt County Moore Park		STATE LA.		PURCHASE ORDER # 98-415184	
COMPANY PNE		REPORT ATTENTION Mark Hansen		PHONE NUMBER (360) 431-1531		FAX NUMBER 360 528-3944	
SAMPLE(S) COLLECTED BY Mark Hansen		DATE(S) COLLECTED 11-4-98		TIME(S) COLLECTED 1023		SAMPLES CHILLED TO 4°C?	
PRESERVATIVE USED? (HCl, etc.)		Regular <input checked="" type="checkbox"/> 3-5 Days <input type="checkbox"/>					

FIELD ID	MEDIA	CONTAINER	VOLUME ETC	ANALYSIS REQUIRED	LAB ID
LC-S1-11/4	Soil	4oz	Grass	NUTPH-GX	A 694
LC-S2-11/4	Soil	4oz	Grass	NUTPH-GX	A 695
LC-S3-11/4	Soil	4oz	Grass	NUTPH-GX	A 696
LC-S4-11/4	Soil	4oz	Grass	NUTPH-GX	A 697
LC-S5-11/4	Soil	4oz	Grass	NUTPH-GX	A 698
LC-S6-11/4	Soil	4oz	Grass	NUTPH-GX	A 699
LC-S7-11/4	Soil	4oz	Grass	NUTPH-GX	A 700
LC-S8-11/4	Soil	4oz	Grass	NUTPH-GX	A 701
LC-S9-11/4	Soil	4oz	Grass	NUTPH-GX, NUTPH-HCLIP+	A 702
LC-P1-11/4	Soil	4oz	Grass	NUTPH-GX	A 703

RELINQUISHED BY Mark Hansen	DATE / TIME 11-4-98 1535	RECEIVED BY Mark Hansen	DATE / TIME 11-4-98
RELINQUISHED BY	DATE / TIME	RECEIVED BY LAB	DATE / TIME
REMARKS	SHIPPED BY Mark Hansen Nov 4, 98 4:45 pm		

WY East will return white copy to client with laboratory report and keep yellow copy for files. Client keeps pink copy.

LABORATORY REPORT

Pacific Northern Environmental
1081 Columbia Boulevard
Longview WA 98632

PROJECT NAME/SITE: Lewis Co. Motor Pool REPORT NUMBER: 24298
PROJECT NUMBER: 98-7-056 REPORT DATE: 11-16-98
EXTRACTION DATE: 11-12-98 PAGES: 1 of 1

NWTPH-Gx

Analyte: Total Petroleum Hydrocarbon Quantification for water

Field ID	Lab ID	Matrix	µg/L (ppb)	Surrogate Recovery (%)
LC-WS1-11/5	A973	SOIL	61,400	114
BLANK	-	-	ND	-
Reporting Limit	-	-	250	-

Surrogate is p-Bromofluorobenzene

ND = Not Detected (below reporting limit or detection limit)

EPA 8020

Analyte: BTEX for water (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	Lab ID	Identification & Quantification µg/L (ppb)				Surrogate Recovery (%)
		Benzene	Toluene	Ethyl-Benzene	Xylenes	
LC-WS1-11/5	A973	11,700	14,600	625	8670	114
BLANK	-	ND	ND	ND	ND	-
Quantification Limits	-	2	2	2	2	-

Surrogate is p-Bromofluorobenzene

ND = Not Detected (below reporting limit or detection limit)

